

CSS450: Assignment 1 Question Sheet

Instructions:

- In questions where you are asked to explain, please be concise.
- Show your work when necessary, be neat, precise, and brief!
- To help us grade your assignments and return this to you in a timely fashion please:
 - Put your name and answers in the answer sheet only (separate link provided). Anything you write outside of the answer sheet **will not** be graded.
 - Provide your answers in the order of the problems.
 - Please use only one side of 8.5x11 paper.
 - Please make sure you bring a hardcopy print out **of the answer sheet (!!only!!)** to submit at the beginning of class. Please do not print out the problems.

Your assignment may not be graded if any of the above is violated, you have been warned.

1. In the context of Model-View-Controller (MVC) architecture, GUI API is most suitable for implementing which of the component?
2. In our discussion of Left Mouse Button (LMB) click and dragging out a circle, which of the following(s) should **not** be a behavior defined for the circle?
 - a. defineCircleCenter()
 - b. serviceLMBDrag()
 - c. updateRadius()
 - d. handleColorChangeRequest()
 - e. supportLMBBehavior()
 - f. increaseCircleVelocity()
3. Please refer to the provided Week-2 example 9: 2.9.MultipleModules:
 - a. Totally, how many ng-controllers are instantiated?
 - b. What is the name of the enclosing parent controller?
 - c. How many instance(s) of the *mValue_1* variable is/are created?
 - d. How many instance(s) of *css-timer mCallback* variable is/are created?

4. I have a counting system where a count number can either be increased by pressing a button, or adjusted by a slider bar. I want to support 2-way data binding myself. Given the following code, I want to make sure that the echo output in *idMyEcho* and the slider position on *idSlider* are consistent when *idButton* is pressed and when the user changes the slider bar.

```
<input type="button" id="idButton" value="MyButton" onclick="incCount()">
<input type="text" id="idMyEcho" value="0">
<input type="range" id="idSlider" value="4" onclick="setCount()">
```

Here are the definitions for the *mCount*, *incCount()* and *setCount()*:

```
<script>
  var mCount = 0;
  incCount = function() {
    mCount++;
    var myEcho = document.getElementById("idMyEcho");
    myEcho.setAttribute("value", mCount);
    // → Part-A: What is the missing code?
  };

  setCount = function() {
    var aSlider = document.getElementById("idSlider");
    mCount = aSlider.value;
    // → Part-B: What is the missing code?
  };
</script>
```

Please fill in the missing code for the above Part-A and B.